

Application No. 09/647,670  
Amendment dated March 11, 2004  
Reply to Office Action dated November 14, 2003

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): ~~A container for transporting bulk material including A wheeled road or railway bulk material transport vehicle comprising: a set of wheels; and a container supported on the wheels for holding the bulk material, said container having two side walls, two end walls and a base, wherein at least one said side wall includes a side wall portion and an integral ridge including first and second wall portions, said ridge running along said at least one side wall between said end walls, and wherein said ridge projects towards the interior of said container a distance greater than the thickness of said at least one side wall, and wherein the angle of said first wall portion of said ridge relative to said side wall portion is a function of the angle of repose of said bulk material such that said first wall portion is aligned with the flow of said bulk material during unloading of the bulk material from the container of the road or railway vehicle.~~

Claim 2 (currently amended): ~~A container for transporting bulk material including A wheeled road or railway bulk material transport vehicle comprising: a set of wheels; and a container supported on the wheels for holding the bulk material, said container having two side walls, two end walls, and a base; wherein at least one said side wall includes a side wall portion and a plurality of vertical reinforcing members spaced along the length of said side wall, wherein said side wall between at least one adjacent pair of said reinforcing members includes at least one integral ridge running therebetween, said ridge including first and second wall portions and projecting towards the interior of said container a distance greater than the thickness of said at least one side wall, and wherein the angle of said first wall portion of said ridge relative to said side wall portion is a function of the angle of repose of the said bulk material such that said first wall portion is aligned with the flow of said bulk material during unloading of the bulk material from the container of the road or railway vehicle.~~

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Claim 3 (currently amended): A ~~container~~ wheeled road or railway bulk material transport vehicle as claimed in claim 2 further including at least one said ridge between each of said reinforcing members.

Claim 4 (currently amended): A ~~container~~ wheeled road or railway bulk material transport vehicle as claimed in claim 2 including additional reinforcement aligned along each said ridge between each of said reinforcing members.

Claim 5 (currently amended): A ~~container~~ wheeled road or railway bulk material transport vehicle as claimed in claim 2, further including at least one said ridge between ~~on~~ said end wall and a first reinforcing member.

Claim 6 (canceled)

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (currently amended): A ~~container~~ wheeled road or railway bulk material transport vehicle as claimed in claim 1, wherein said internal ridge includes a first wall portion deflected inwardly a progressively increased degree relative to the intersection of said side wall and said base, and a second wall portion extending from said first wall portion and being deflected outwardly a progressively decreased degree relative to the intersection of said side wall and said base.

Claim 10 (currently amended): A ~~container~~ wheeled road or railway bulk material transport vehicle as claimed in claim 1 wherein said first wall portion extends from said side wall portion at an angle  $\phi_1$ , wherein:

$$\phi_1 \leq \phi_2 - \phi_3 - 90^\circ$$

where:

$\phi_1$  - is the angle between said side wall portion and said first wall portion,

$\phi_2$  - is the angle said container is rotated during unloading of said container, and

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$\phi_3$  - is the natural angle of repose of material to be transported in said container.

Claim 11 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 wherein said first wall portion extends from said side wall portion at an angle  $\phi_1$ , wherein:

$$\phi_1 \leq \phi_2 - \phi_3 - \phi_4 - 90^\circ$$

where:

- $\phi_1$  - is the angle between said side wall portion and said first wall portion,
- $\phi_2$  - is the angle said container is rotated during unloading of said container,
- $\phi_3$  - is the natural angle of repose of material to be transported in said container, and
- $\phi_4$  - is the cohesion of said material to be transported when wet.

Claim 12 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 adapted for unloading of material through the base of the container, and wherein said first wall portion extends from said side wall portion at an angle  $\phi_1$ , wherein:

$$\phi_1 \leq 90^\circ - \phi_3$$

- $\phi_1$  - is the angle between said side wall portion and said first wall portion, and
- $\phi_3$  - is the natural angle of repose of material to be transported in said container.

Claim 13 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 adapted for unloading of material through the base container, and wherein said first wall portion extends from said side wall portion at an angle  $\phi_1$ , wherein:

$$\phi_1 \leq 90^\circ - \phi_3 - \phi_4$$

where:

- $\phi_1$  - is the angle between said side wall portion and said first wall portion,
- $\phi_3$  - is the natural angle of repose of material to be transported in said container, and
- $\phi_4$  - is the cohesion of said material to be transported when wet.

Claim 14 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 wherein said first and second wall portions are symmetrical.

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Claim 15 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 wherein said second wall portion is convex or concave relative to the interior of the container.

Claim 16 (canceled)

Claim 17 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1, wherein said ridge further includes a third wall portion between said first wall portion and said second wall portion.

Claim 18 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 17 wherein said third wall portion is concave.

Claim 19 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 17 wherein said third wall portion is flat or straight.

Claim 20 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 19 wherein said third wall portion is parallel to said side wall portion.

Claim 21 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 19 wherein said third wall portion is angled relative to said side wall portion.

Claim 22 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 17 wherein said first wall portion is equal to or longer than said third wall portion.

Claim 23 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1, wherein at least one said side wall further includes a partial ridge along the top or rim of said at least one side wall, said partial ridge being formed by a fourth wall portion, said fourth wall portion being equivalent to said first wall portion.

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Claim 24 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 23, wherein said fourth wall portion is of equal length to said first wall portion.

Claim 25 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 23 wherein said partial ridge further includes a strengthening member along the periphery of said fourth wall portion, said strengthening member forming the rim of said container.

Claim 26 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 25, wherein said strengthening member is integrally formed within said at least one side wall.

Claim 27 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 wherein said base of said container includes at least one ridge extending substantially along the length of said base.

Claim 28 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 27 wherein said at least one ridge along said base is located about wheel or track positions of a support for said container.

Claim 29 (canceled)

Claim 30 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 for use in transportation of bulky material by road.

Claim 31 (currently amended): A container wheeled road or railway bulk material transport vehicle as claimed in claim 1 for use in transportation of bulk material by rail.

Claim 32 (canceled)